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AUTHOR Banbury, Mary M.
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ABSTRACT

This handbook may serve as a guide in helping teachers to identify children with learning disabilities. Hypothetical cases are presented, giving specific examples of academic and behavioral problems which may be caused by such learning disabilities as visual perceptual disorders, auditory perceptual disorders, motor disorders, orientation disorders, expressive language disorders, and behavioral social disorders. Guidelines and procedures are presented for the teacher who observes in a student the behaviors illustrated in the case profiles. These are intended to assist the teacher in determining whether or not to pursue a formal evaluation. A discussion, based on the diagnostic-prescriptive approach to teaching, offers assistance to teachers in systematically assessing needs, formulating objectives, determining strategies, and monitoring pupil performance. A bibliography of reference materials is included. (JD)

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WHAT ARE LEARNING DISABILITIES?

by

Mary M. Banbury
Instructor of Special Education
University of New Orleans

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The AFT Teachers' Network for Education of the Handicapped is intended to facilitate regular education teachers' ability to work effectively with handicapped children in their classrooms. The Network is involved in inservice training and preparation and dissemination of resources to teachers to help accomplish this goal.

In conjunction with its dissemination efforts, the Network is publishing a series of pamphlets on various disabilities for teachers who work with handicapped children. These pamphlets provide practical information for use in the regular classroom in relation to the following disabilities: dyslexia, mental retardation, learning disabilities and emotional handicaps; hearing, visual, and orthopedic impairments; and special health problems, such as asthma and diabetes.

Write to the Network for more information about its publications and for placement on the Network mailing list.

Carolyn Trice
Project Director

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SP 023 088

"Educators must respond to the symptoms and the learning characteristics of these children rather than wait for research to identify causes."

Learning Disabilities

Answering the question, "What are learning disabilities?" is like responding to the query, "What are the causes and effects of the current inflation/recession cycle?" Where does one begin?

Although the term "learning disabilities" did not emerge until the 1960s, the condition had been studied since the early 1800s by individuals in the fields of medicine, child development, optometry, audiology, psychology, speech and language, and education. This multidisciplinary approach resulted in diverse descriptions, imprecise definitions, ambiguous prevalence figures, and conflicting etiologies.

The descriptors, identifying special concerns, include such terms as: minimal brain damage, minimal brain dysfunction, minimal cerebral dysfunction, dyslexia, dyscalculia, dysgraphia, perceptually handicapped, neurologically handicapped, educationally handicapped, attention disorders, psychoneurological disorders, and language disorders.

The definitions reflect a user's specific orientation. While some professionals define the disorder as a maturational imbalance, a developmental delay, a neurological or organic impairment, or a discrepancy between expected potential and actual performance, others explain the disability by exclusion, that is by stating that these learning problems are not caused by deficits in the intellectual, sensory, emotional, or environmental areas.

Prevalence estimates reflect the diversity in terminology and definitions. Depending upon the frame of reference, incidence rates range from two to eight million children or from one to thirty percent of the school population.

Finally, while some specialists consider etiology irrelevant, others focus their attention on causative factors, citing heredity, prenatal or perinatal problems, high fevers, head injuries, toxins, anoxia, malnutrition, or food additives.

In an attempt to resolve these controversies and to provide a framework for funding, program development, future legislative acts, identification, and treatment, Congress, in 1968, upon recommendation of the National Advisory Committee on Handicapped Children, adopted the term "Learning Disabilities" and accepted the following definition:

> Children with special learning disabilities exhibit a disorder in one or more of the basic psychological processes involved in understanding or using spoken or written languages. These may be manifested in disorders of listening, thinking, reading, writing, spelling, or arithmetic. They include conditions which have been referred to as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, developmental aphasia, etc. They do not include learning problems which are due primarily to visual, hearing, or motor handicaps, to mental retardation, emotional disturbance, or to environmental disadvantage.

Having a single term to describe this category of handicapped children reduces some of the confusion; however, there are still conflicting causative theories, conflicting prevalence estimates, and criticisms of components of the 1968 definition.

In spite of these differences of opinions, there are generalizations which, for educational purposes, can be made:

1. Significant numbers of learning disabled children are currently enrolled in schools.
2. Educators must respond to the symptoms and the learning characteristics of these children rather than wait for research to identify causes.
3. Learning disabled children, who are intellectually, physically, and emotionally capable of learning and who have had the opportunity to learn, do not perform in expected ways or achieve at expected levels. This is often referred to as a "significant educational discrepancy."
4. Receptive and expressive language deficits are most noticeable in the academic areas of reading, writing, spelling, and arithmetic.
5. Learning disabilities vary from child to child according to the severity of the condition and the type of disorder that is exhibited.

The label "Learning Disabilities" is all-embracing; it describes a syndrome, not a specific child with specific problems. The definition is comprehensive; it assists in classifying children, not teaching them. Teachers need to concentrate on the individual child. They need to observe process and performance, assess strengths and weaknesses, and provide prescriptions and materials.

The following hypothetical cases delineate the particular areas that may be affected by learning disabilities, alert teachers to sources of student frustrations, and give specific examples of academic and behavioral problems.

Although each profile depicts a separate and complete disorder for purposes of discussion, such clear cut distinctions do not always exist. There is a high degree of interrelationship and overlapping among the areas of learning. Consequently, learning disabled children may exhibit a combination of characteristics. This cluster of symptoms may be partially or completely manifested in one area or in conjunction with other areas. These problems may mildly, moderately, or severely impair the learning process. Although it is not likely that one student will exhibit all these disorders, it is possible that students who are not learning disabled will manifest some of these behaviors. The student descriptions and the ensuing guidelines for referral assist teachers in deciding whether or not to pursue formal evaluation.

Case Studies

I. Bonnie: Visual Perceptual Disorders

Bonnie, a third grader has visual perception problems. To simulate Bonnie's perceptual problems, complete the following tasks:

1. Read this paragraph

Bonnie yas visnal percegtual grodlews. Sye has ado veanerape lwtellibence. som eof the things t hat wahe reab ing wor e biff ic cult for ner are yer becifits in biscrinimation, clo sune, and fipure-groumb. To nuberstanb einnoB, trink adout yo ur re acti ous whi le atten gtlng tor eab this garapraph.

2. Draw the dashboard of your car from memory.

3. Unscramble these words: oykceh, yakenrv, solubtsecroli

Although all teachers do not realize Bonnie's frustration, every teacher will recognize her performance.

Bonnie epitomizes the "b-d, was-saw" problem; she reverses, rotates, inverts, and confuses similar letters and words. Omissions, substitutions, and guesses based on general configuration and initial consonants are common reading behaviors. Unable to note detail or concentrate on relevant visual stimuli, Bonnie constantly loses her place and has difficulty distinguishing medial vowels, medial parts, or endings of words. She cannot remember sight words, especially abstract words such as "what," "the," "there," "for," and "were."

Poor memory and visual sequencing skills also result in poor spelling. Sometimes Bonnie's spelling answers do not even resemble the stimulus words; other times, when the teacher asks her to spell such words as "laugh," "because," "sure," "enough," and "nation," she writes "laf," "bekuz," "shur," "enuf," "nashun." When she is able to recall all the letters, she may transpose the order; she writes "thier," "huoes," and "eth" for "their," "house," and "the."

Her handwriting is characterized by reversals, inversions, and rotations, by size variation, mixture of upper and lower case letters, insufficient spacing between words, and inadequate letter formation.

Similar problems are evidenced in arithmetic. Bonnie reads "26" as "62," "184" as "148," "89−3" as "89+3;" she writes "6" for "9," "34" for "43," "6+3" for "6×3," and "1 6 7" for "167." She has difficulty recalling number formation and seriation, recognizing sets and groupings, and reading story problems.

Although Bonnie has adequate visual acuity, she cannot correctly and consistently identify, discriminate, process, or recall visual sensations. Her learning behaviors, persisting beyond the normal developmental stage, are not appropriate for a child of her age and intellectual ability.

II. Jimmy: Auditory Perceptual Disorders

If you have ever mistaken a ringing phone for an alarm clock, attempted to remember the names of four people to whom you were just introduced, taken notes from a college professor who lectured much too rapidly, or tried to listen to an important phone conversation against the competing background noises of stereo, television, children, and a dog, you have some idea of what school is like for Jimmy, a child with auditory perception problems.

Although Jimmy has adequate auditory acuity, he is not always able to identify, discriminate, integrate, recall, or attend to relevant sounds. In reading, he does not learn through a phonetic approach. He hears the teacher say, "desk and dog," and "cup and top;" he cannot, however, perceive the similar initial and final consonants. He does not recognize that "map," "cap," "tap," and "lap," rhyme. He is unable to auditorily discriminate the short vowel sounds in "ham," "hem," "him," and "hum." Unable to establish the sound/symbol relationship, Jimmy cannot sound out new words or relate them to known words. Therefore, each new word is a unique experience. Auditory synthesis and analysis present additional problems. When the teacher asks him to blend the syllables "spa-ghet-ti," he either repeats the syllables or says something like "ghaspetti;" "b-i-g" remains "b-i-g" or becomes "gib," "bigu," "bug," "book," or "buigu." Assignments that require him to syllabicate or break a word into individual sounds are not done or done incorrectly.

All closure tasks are difficult for Jimmy. If he hears "_outh _akota," "_ouisiana," or "Illi_ois," he cannot fill in the missing sounds and name the states. He is the child who says "childrens," "mouses," and "foots," "Tom has aten all the ice cream" and "I am walks to the store."

These deficits in the auditory channel also interfere with his spelling and writing. If a teacher asks the spelling words in a different order from the study list she gave Jimmy, she may get back the original list. Stimulus words such as "mist," "tent," "pot," and "ship" produce responses like "mus," "ten," "pat," and "chip."

Jimmy is always asking, "What did you say?" or stating, "I can't remember." Easily distracted by background noises, unable to focus on relevant auditory stimuli in a noisy classroom, he finds it difficult to attend. In arithmetic, he cannot recall the names of numerals, retain an auditory sequence of numbers, or recite the multiplication tables. In general, he is unable to follow oral directions, remember verbal instructions or comprehend and write down appropriate lecture notes.

Jimmy is learning disabled. He has adequate sensory acuity and average intellectual ability; however, he requires special intervention strategies and alternate teaching approaches.

"The label 'Learning Disabilities' is all-embracing; it describes a syndrome, not a specific child with specific problems."

"Prescription should be matched to learning styles."

III. John: Motor Disorders

John's learning disability is manifested in the motor area. Lacking large muscle coordination, balance, and rhythm, John cannot easily execute elementary motor movements such as jumping, hopping, skipping, or running. Unable to control his movements, he is awkward and clumsy as he navigates through his environment, stumbling and bumping into objects and people.

In addition, John lacks the adequate coordination of his fine or small muscles. Buttoning, zipping, hooking, clasping, fastening or tying are major and, sometimes, impossible tasks. He does not have the finger strength or manual dexterity to grasp objects, use a scissors, or hold a crayon, pencil, or pen. His hands and eyes do not work together. Consequently, he has difficulty throwing, catching, cutting, scribbling, coloring, tracing, drawing, copying, printing, and writing.

John's deficiencies in motor ability affect him physically, socially, and academically. He avoids physical exercise, sports, and movement games; therefore, he does not engage in active play with other children. Physical education is a trial for him, and academic tasks that require him to copy and write cause frustration.

John is learning disabled. He does not perform in the motor area at a level commensurate with his age and expected ability.

IV. Mary: Orientation Disorders

Mary's disorder was not diagnosed and remediated when she was a child; she is now an adult, the driver of an automobile. You have seen Mary on the highway and in the city. She is the driver who flips on the left hand signal, then turns right. She does not stay in her lane, passes on the wrong side, follows too closely, and misses interstate entrances and exits. Narrow parking places, curbs, garages, and meters are her prime victims. She is noted for her fast stops and quick turns. She speeds because she is always late. For Mary, McDonald's, Kentucky Fried Chicken, Pizza Hut, and Takee-Outee are not only fast food places, they are landmarks, substitutes for north, south, east, and west. Her problems are not over even when she parks; indoor and outdoor lots are transformed into labyrinths as she later searches for her missing car.

Mary has an orientation disorder. There were clues that should have alerted Mary's teachers to her disability.

As a child, Mary had poor body awareness which resulted in laterality confusion and poor judgments about space and distance. She was the student who could not differentiate her right hand from her left, who reversed words, and solved math problems from left to right. Her written work was disorganized, poorly planned, and sometimes mirror written. Directions containing spatial terms such as around, over, under, top, bottom, near, far, etc. bewildered her. She would get lost going to the cafeteria or playground, coming from the gym or the office.

Mary was disoriented temporally as well as spatially. Abstract time concepts like "before," "after," "yesterday," "tomorrow," "last year," and "a century ago" perplexed her. Telling time, sequencing numbers, letters, or events, and determining cause and effect were baffling. Because of her poor time sense, Mary was always late, disorganized, and unable to follow schedules.

Although children and adults who are not learning disabled may manifest similar orientation problems, Mary's spatial and temporal disorientation were persistent and critical, interfering with her movement in space and her performance in school.

V. Tom: Expressive Language Disorder

If you have a child in your classroom who says, "Hims gots two dog," "They running down street," "Her gonna get ya," "That's me's book," "Me go store you with?," "Those book over there;" who responds "nine" and "four" to the questions, "What is your name?" and "Whose class are you in?;" who describes keys in the following manner, "They're . . . you know . . . those things for doors, those . . . you know . . . they're thigamajigs for cars and houses . . . you know," you may have a child like Tom.

Tom has an expressive language disorder. His syntax, grammar, and verbal abilities are not appropriate for a nine year old youngster, *raised in a standard English speaking environment.* Tom's immature, incomplete, and often telegraphic verbalizations are characterized by hesitations, problems with word retrieval, substitutions, omissions, or transpositions of words, and incorrect usage of pronouns, verb tenses, and prepositions. His utterances lack spontaneity, coherence, and logical sequence.

Similar error patterns are detected in Tom's graphic expression. The content of his written work is equally illogical, inaccurate, and incoherent. His compositions, like his verbal expressions, reflect a limited vocabulary, inadequate sentence construction, and deficits in syntactical and grammatical structure.

It is difficult to determine whether Tom's expressive language problems are the result of a receptive or an integrative language disorder. Sometimes he does not correctly decode the auditory and visual information he receives. Consequently, he does not respond appropriately. Cognitive deficits are suggested by his inability to associate, classify, categorize, or generalize. His receptive and expressive language skills are concrete; he does not easily comprehend abstract words or words with multiple meanings.

Tom, too, is learning disabled. There is a significant discrepancy between his actual language production and the expected receptive, integra-

tive, and expressive skills for a child of his age, sensory abilities, mental capacity, and educational opportunity.

VI. Michael: Behavior Social Disorders

Sit down!
How do you know you can't do it? You haven't even tried.
Keep your hands to yourself!
How would you like it if someone said that to you?
Why are you crying?
Pay attention!
Mind your own business.
Be quiet!
Now I mean it! Sit down now!

If this sounds familiar to you, then you have met a Michael. Michael is a hyperactive learning disabled child. Unable to inhibit his motor activity or verbal responses, he is constantly out of his desk, off task, and in trouble. He stops moving long enough to inform someone of his or her excess poundage, bad breath, poor complexion, or oily hair. Excitable, erratic, distractible, and disorganized, Michael cannot cope with environmental or social demands. He does not attend to verbal cues and is oblivious to nonverbal cues. As a result, he does not listen to directions, follow instructions, or complete assignments. Insensitive to the feelings, moods, and reactions of others, he is often tactless and socially unacceptable.

Michael's learning disability affects his emotional status as well as his academic performance and social behavior. Difficulties with school requirements and peer interactions generate feelings of frustration, anxiety, and stress. He sees himself as a failure, incapable, incompetent, and unacceptable.

Some learning disabled students may be slow or hypoactive, overattentive to tasks, or shy and withdrawn, but, they too, like Michael, evidence a poor self-concept and a lack of self-esteem.

The behavior/social component has an impact on the learning process and on academic and social performance. The child exhibiting deficits in this area requires remedial efforts as well as patience and understanding.

Referral Guidelines

If a child in your class exhibits any of the behaviors delineated in these profiles to a marked degree and over a period of time, referral may be indicated. The following guidelines and procedures will assist you in determining whether or not to pursue a formal evaluation.

1. Have pertinent information gathered. This includes: family background, developmental history, medical and health information, results of sensory screenings, report card grades, and scores on standardized tests.
2. Collate and interpret data concerning the child's present performance in academic, motor, verbal and social areas. (Assistance may be required from a counselor or medical or special education personnel.)
3. Analyze the child's learning style and note strengths and weaknesses in both academic and non-academic areas.
4. Review the teaching approaches and the techniques that have been successful or unsuccessful in resolving or remediating the deficit areas.
5. Confer with the learning disabilities specialist from your school or central office, if available.
6. Summarize and analyze information. If a significant educational discrepancy exists, if the child is not functioning at a level commensurate with age, grade, mental capacity, physical abilities, and educational opportunity, then ask your principal, learning disabilities teacher, or central office special education personnel for information concerning your particular school district's referral procedures.
7. Arrange for the appropriate school official to contact the child's parents. Parental notification and permission for evaluation is mandated by law.
8. Complete the necessary forms or procedures enabling the child to receive further screening or formal evaluation.
9. Contact your local teacher union for assistance if procedural problems or questions arise which cannot be handled through normal administrative channels.

"Contact your local teacher union for assistance if procedural problems or questions arise which cannot be handled through normal administrative channels."

Diagnostic-Prescriptive Teaching

Since the label "Learning Disabilities" describes children who vary according to age, achievement level, learning style, type of disorder, degree of impairment, and emotional and social behavior, it is not possible to specify teaching techniques and instructional materials suitable for all learning disabled students.

The following discussion, based on the diagnostic-prescriptive approach, assists teachers in systematically assessing needs, formulating objectives, determining strategies, and monitoring pupil performance.

"Although too often neglected in scheduling arrangements, frequent communication with the special education teacher is essential."

I. Assessment

The first step in planning a program is to gather and interpret assessment data. Sources of diagnostic information may include school records; interviews with parents, principal or counselor; consultations with special education professionals; formal standardized instruments; criterion-referenced tests; and such informal measurements as teacher-made devices, questionnaires, checklists, rating scales, observations, and samples of class work.

An analysis of diagnostic results should provide answers to questions concerning:

1. current performance
2. learning strengths and weaknesses
3. preferred learning modalities
4. learning rate
5. target behaviors
6. reinforcement preferences
7. appropriate response modes
8. instructional setting
9. teaching presentation
10. materials and resources

II. Objectives

The educational assessment described above provides the basis for formulating observable measurable objectives. To ensure precise objectives, each task must be analyzed. Task analysis involves:

1. identifying necessary prerequisite skills;
2. specifying the subcomponents of the task;
3. arranging the steps in sequential order from simple to complex;
4. determining which components of the hierarchy the child can or cannot perform;
5. pinpointing areas for remedial instruction;
6. translating steps into specific objectives.

A well thought out objective includes student's name, conditions, overt action verb, terminal behavior, and performance criterion.

The following is an example of task analysis:

TASK

The task is to solve problems involving addition of two digits plus two digits with regrouping ($\begin{array}{r} 74 \\ +18 \end{array}$ $\begin{array}{r} 34 \\ +57 \end{array}$).

PREREQUISITE SKILLS

a. visually discriminate numerals
b. name numerals
c. write numerals
d. state concept of one-to-one correspondence
e. identify addition sign
f. state concept of addition
g. add single digit numbers with sums less than ten
h. add single digit numbers with sums less than twenty
i. state concept of place value
j. add two digit plus two digit numbers involving no regrouping

ANALYSIS OF TASK

a. identify the problem as addition
b. identify the starting point
c. compute the digits in the units column
d. recognize that since the answer is ten or over, regrouping is necessary
e. regroup into units and tens
f. write down the units under the units column
g. carry the tens to the tens column
h. compute the tens column
i. write the answer

OBJECTIVE

The student will solve ten addition computations involving two digits plus two digits with regrouping.

If, however, the student is unable to perform any of the prerequisite skills or the subcomponents of the task, the teacher identifies the area of remediation and translates that step into the specific behavioral objective.

III. Prescriptions

The third step in the planning stage is to select appropriate methods, materials, and strategies to facilitate accomplishment of objectives. Prescriptions should be matched to learning styles. For example, auditory learners require oral instruction, sound clues, records, and audio tapes. Visual learners need printed materials, pictures, movies, filmstrips, and sight clues. Some learning disabled children profit from a multisensory approach, a presentation of skills and concepts of utilizing all the modalities.

Commercial and teacher-made materials must be geared to the student's interest and functional academic levels. The learning assignments, presented in small units to ensure successful completion, should engage the child in active learning.

Teaching strategies vary according to the child's grade level, curriculum area, and specific learning disability. The following outline lists general problems and suggests instructional and compensatory techniques.

I. Reading Problems

A. Teaching

1. Match the reading approach to the learning style. Auditory learners usually learn best through a sound/symbol approach such as phonics or linguistics; visual learners may need a sight word or look-say method. Some children require a visual-auditory-kinesthetic-tactile method (Fernald's VAKT); they must see, say, trace, and write each new word.

2. If a required basal reading text is not appropriate for the learning disabled student, modify the approach, combine it with language experience stories, or select alternate reading materials.

3. Use learning centers to reinforce concepts.

B. Accommodation

1. Assign peer readers to students.

2. Write summaries of reading assignments; laminate them.

3. Have aides underline key concepts on a page, if available.

4. Have aides tape record textbooks. The tape, divided into small sections, should contain preview questions and explanations of major ideas.

5. Provide study questions for assigned readings.

6. Shorten assignments or allow more time to read.

7. Select high interest/low level reading materials for the specific content area.

8. Tape record or give oral tests.

II. Handwriting Problems

A. Teaching

1. Provide activities to develop the child's fine motor skills and eye-hand coordination.

2. Select appropriate writing utensils and paper.

3. If a student cannot remember proper letter formation, utilize a multisensory approach. Have the child see, say, and trace letters made of sandpaper, salt, pipe cleaners, clay, or other tactile material.

4. If a child consistently reverses, inverts, rotates, or mixes upper and lower case letters, teach cursive writing.

B. Accommodation

1. Encourage the child to learn to type.

2. Have a child who is a good writer carbon copy lecture notes and written board work.

3. Allow the child to tape record lectures.

4. Prepare an outline of the lecture; have the student complete it.

5. Construct tests that require minimal writing such as multiple choice, matching, true-false, fill-in-the-blank.

6. Allow the student to tape answers to essay tests.

7. Grade content rather than handwriting.

III. Vocabulary Problems

A. Teaching

1. Introduce new vocabulary words prior to each lesson.

2. Provide a variety of concrete activities to introduce and review vocabulary.

3. Have students file new words in a word box. Review frequently.

B. Accommodation

1. Compile a handbook that lists and defines essential terms for the specific content area. Have special education teacher reinforce vocabulary.

2. Explain concepts for different levels of understanding.

3. Have students write and laminate their own definitions of terms and explanations of major ideas.

4. Make a tape of key concepts and theories.

5. Use concrete aids and manipulative materials to present new concepts and to reinforce learning.

In selecting prescriptions, teachers should be guided by the following proverb:

Tell me, and I forget.
Show me, and I remember.
Involve me, and I understand.

IV. Teaching

Critical factors in the implementation phase of the diagnostic-prescriptive approach include:

1. *Structure*—Set rules and establish a routine. Be consistent.

2. *Instructional setting*—Consideration should be given to small group sessions, peer teaching, individualized instruction, learning centers, and independent practice.

3. *Directions*—Use visual stimuli or demonstrations when giving verbal instructions. Establish eye contact; give one direction at a time; check for understanding.

4. *Rate of presentation*—Allow sufficient time for the child to master concepts and practice skills.

5. *Reinforcement*—Appropriate behaviors may be maintained or increased through the use of reinforcers. Use social reinforcers such as, "good," "great," "super," "fantastic," "wow," "dynamite," etc. Link the praise comment to achievement or improvement in the academic or behavioral areas. Nonverbal reinforcers such as a smile, nod, wink, OK, or thumbs-up sign are also effective.

Other natural reinforcers include activities in the classroom such as being first in line, acting as messenger, sharpening pencils, cleaning erasers, passing out and collecting books or papers, watering plants, feeding class pets, putting up or taking down bulletin boards. Privileges and activities, paired with social praise, are given to students who exhibit desired learning and social behaviors or improvement in those behaviors.

If a child requires more tangible reinforcers, consult with a counselor or special education teacher for assistance in implementing a behavior modification program.

6. *Cooperation*—Although too often neglected in scheduling arrangements, frequent communication with the special education teacher is essential. Clarify issues concerning scheduling and grading; share objectives, instructional techniques, and curriculum modifications.

V. Evaluation

Criterion measurement, an integral part of the instructional program, monitors pupil progress, verifies the accuracy of assessment and precision of objectives, and evaluates the effectiveness of prescriptions and teaching strategies. Findings may be recorded in grade books, checklists, skill sheets, or simple line or bar graphs. A precise feedback system and record-keeping procedure allow for continuous revision and modification in planning and implementing an educational program.

Learning disabled children are often called the "puzzle children." Knowledge of characteristics, behaviors, and diagnostic and prescriptive techniques are the first steps in solving this puzzle.

"Tell me, and I forget. Show me, and I remember. Involve me, and I understand."

Reference Materials

The following handbooks and textbooks provide teachers with detailed practical information on how to diagnose, teach, manage, and mainstream learning disabled children:

Axelrod, S. *Behavior Modification for the Classroom Teacher.* New York: McGraw-Hill, Inc., 1977.

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Turnball, A. P. and Schulz, J. B. *Mainstreaming Handicapped Students: A Guide for the Classroom Teacher.* Boston: Allyn and Bacon, 1979.

Organizations

For additional information on learning disabilities, teachers and parents may contact the following organizations:

Association for Children with
Learning Disabilities
5225 Grace St.
Pittsburgh, PA 15[illegible]

Closer Look
Box 1492
Washington, D.C. 20013

Council for Exceptional Children
1920 Association Dr.
Reston, VA 22091

National Easter Seal Society
2023 W. Ogden Ave.
Chicago, IL 60612

The Orton Society, Inc.
8415 Bellona Ln.
Towson, MD 21204